LOW FLOW ATRIAL-ARTERIAL SHUNT FOR PUMP-ASSISTED MYOCARDIAL REVASCULARIZATION WITHOUT CARDIOPULMONARY BYPASS

ABSTRACT

A low flow atrial-arterial shunt for pump-assisted myocardial revascularization without cardiopulmonary bypass comprises a short section of cardiopulmonary bypass tubing securely terminated at either end with a vented cannula adapter. The shunt is used in conjunction with venous and aortic cannulae and one of the conventional peristaltic pumps found in a medical facility's existing cardiopulmonary bypass machine. In use, e.g., for a left ventricular assist, the venous cannula is surgically attached to the left atrium, and the aortic cannula is attached to the aorta. Subsequently, the shunt is attached to the two cannulae and is primed to remove air. Next, the tubing is placed in the peristaltic pump, and the pump is activated, causing blood to flow from the left atrium, through the shunt -- where it is propelled along by the pump -- and into the aorta.